

WHAT IS CLAIMED IS:

1. A key managing system comprising:
- an information encrypting apparatus for encrypting information by using encryption keys;
  - an information decrypting apparatus for decrypting information by using decryption keys;
  - a key controlling apparatus for controlling said encryption keys and said decryption keys used in said information encrypting apparatus and said information decrypting apparatus respectively; and
  - a communication network connected at least between said information encrypting apparatus and said key controlling apparatus,
- wherein said key controlling apparatus comprises:
- a key storage for storing at least a pair of said encryption and decryption keys,
  - a key control table storage for storing a key control table indicating a relation between said decryption keys stored in said key storage and disclosure times of said decryption keys,
  - a key searching apparatus for searching said key control table stored in said key control table storage for a decryption key associated with a disclosure time specified by said information encrypting apparatus and an encryption key forming a pair corresponding to said decryption key,
  - an encryption key transmitting apparatus for transmitting an encryption key resulting from the search performed by said key searching means to said information encrypting

apparatus through said communication network, and

decryption key disclosing means for disclosing a decryption key corresponding to a current time according to the relation indicated by said key control table stored in said key control table storage;

wherein said information encrypting apparatus comprises:

time information transmitting means for transmitting data representing a time at which security protection of data to be encrypted will be ended to said key controlling apparatus through said communication network,

encryption key acquiring means for acquiring an encryption key which is transmitted by said key controlling apparatus through said communication network and forms a pair in conjunction with a decryption key associated with a disclosure time indicated by the data representing a disclosure time transmitted by said time information transmitting means,

data encrypting means for encrypting data by using said encryption key acquired by said encryption key acquiring means, and

encrypted information forming means for forming encrypted information to be transmitted to said information decrypting apparatus by adding said data representing a time, at which secrecy protection of said encrypted data is to be ended, to said data encrypted by said data encrypting means; and

wherein said information decrypting apparatus comprises:

encrypted information acquiring means for acquiring said encrypted information formed by said information encrypting apparatus,

decryption key acquiring means for acquiring a decryption key disclosed by said key controlling apparatus at a disclosure time indicated by the data representing a disclosure time included in said encrypted information acquired by said encrypted information acquiring means,

and

information decrypting means for decrypting said encrypted data included in said encrypted information acquired by said encrypted information acquiring means by using said decryption key acquired by said decryption key acquiring means.

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